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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,010

05/27/2005

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TASH-9

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EXAMINER

VORTMAN, ANATOLY

ART UNIT

PAPER NUMBER

2835

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,010	<b>Applicant(s)</b> SAHASHI ET AL.	
	<b>Examiner</b> ANATOLY VORTMAN	<b>Art Unit</b> 2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Reply Under 37 CFR 1.111***

1. The submission of the Applicants Reply of 04/28/08 to the non-final Office action of 01/28/08 is acknowledged.

### ***Drawings***

2. Figures 27 and 28 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities: the specification appears to be a literal translation from a foreign document and replete with cumbersome clauses that are not precise and concise, e.g.: " As the reset time of overload relay becomes longer than

the positive characteristic thermistor 312, the motor 100 is ready to start” (p. 2, lines 11+).

Applicant is required to carefully review the entire specification in order to make appropriate corrections related to the clarity of the language. Further, the amended portion of the specification on p. 2 recites “the snap action bimetal”. Examiner believes that the article “a” should be used before “snap action bimetal” and article "the" should be used for further recitations of the aforementioned limitation (i.e. similarly to the amended claim 1). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, and 4, are rejected under 35 U.S.C. 103(a) as being unpatentable over US/5,428,493 to Takeuchi et al. (Takeuchi).

Regarding claim 1, Takeuchi disclosed (Fig. 1, 2, 5, and 6) a starter of single-phase induction motor having main winding (61) and auxiliary winding (62) energized by alternating-current power source (8), comprising: a casing (20), a positive characteristic thermistor (1) connected in series to the auxiliary winding (62), an auxiliary positive characteristic thermistor (2) connected parallel to a snap action bimetal (3), said bimetal (3) connected in series to a series

circuit of auxiliary winding (62) and positive characteristic thermistor (1) for sensing the heat from the auxiliary positive characteristic thermistor (2) and turning off when reaching a set temperature, and an enclosed compartment accommodated in the casing (20), for enclosing the snap action bimetal (3) and auxiliary positive characteristic thermistor (2) (Fig. 2A), but did not disclose that said auxiliary positive characteristic thermistor is connected parallel to the positive characteristic thermistor and the snap action bimetal.

It would have been obvious to a person of ordinary skill in the thermal switch art at the time of the invention to move the connection point of the auxiliary positive characteristic thermistor (2) upstream along the series circuit of auxiliary winding (62), beyond said positive characteristic thermistor (1), thus connecting said auxiliary positive characteristic thermistor in parallel to the positive characteristic thermistor (1) and the snap action bimetal (3), since such a simple and straightforward modification would allow for a complete disconnection of the positive characteristic thermistor (1) from the electrical source upon opening of the snap action bimetal (3), thus reducing consumption of the electrical power. Further, such a modification would amount to a routine optimization of the electrical circuit in a process of achieving optimal heat balance and optimal “turn on” / “turn off” characteristics of the bimetal (3). Such minor circuit adjustments and modifications (in this case a mere experimentation with series/ parallel resistor circuits) have been notoriously known and widely used in the electrical arts at the time of the invention to improve upon similar devices. Therefore, applying the aforementioned known techniques to the circuit of Takeuchi would have yield predictable results (i.e. desired heat balance and optimal “turn on” / “turn off” characteristics of the bimetal) and would have been

be obvious to a person of ordinary skill to try with reasonable expectation of success. *KSR v. Teleflex*, 550 U.S. \_\_\_, 127 S. Ct. 1727 (2007).

Regarding claims 3 and 4, the claims recite the process limitations pertained to the method of making the bimetal (i.e. by “drawing” and by “forming in a circular form in the center”). Even though the claims are limited by and defined by the recited process, the determination of patentability of the product is based on the product itself, and does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). It is the patentability of the product claimed and not of the recited process steps which must be established. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). It should also be noted that a “[p]roduct-by process claim, although reciting subject matter of claim in terms of how it is made, is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of fact that claim may recite only process limitations”, *In re Hirao and Sato*, 190 USPQ 15 (Fed. Cir. 1976). Therefore, the claims have not been given patentable weight.

#### ***Allowable Subject Matter***

6. Claims 2-4 are allowed (for reasons for allowance see previous Office action).

*Response to Arguments*

7. Applicant's arguments have been fully considered but they are not persuasive. The gist of the arguments is that "the structure (of the circuit) difference is not obvious to the skilled in the art" because allegedly, "differences are not routine modifications for the skilled in the art".

Firstly, Examiner would like to direct the Applicant's attention to the fact that electrical circuits do not have a "structure". Structure is a characteristic of the physical things, e.g. of a mechanical device, of an electronic component, etc. The electrical circuits, on the other hand, differ not by the different "structure", but by the different ways they are interconnected. Secondly, Examiner maintain his opinion that it would have been obvious to a person of ordinary skill in the thermal switch art at the time of the invention to move the connection point of the auxiliary positive characteristic thermistor (2) upstream along the series circuit of auxiliary winding (62), beyond said positive characteristic thermistor (1), thus connecting said auxiliary positive characteristic thermistor in parallel to the positive characteristic thermistor (1) and the snap action bimetal (3), since such a simple and straightforward modification would allow for a complete disconnection of the positive characteristic thermistor (1) from the electrical source upon opening of the snap action bimetal (3), thus reducing consumption of the electrical power. Further, such a modification would amount to a routine optimization of the electrical circuit in a process of achieving optimal heat balance and optimal "turn on" / "turn off" characteristics of the bimetal (3). Such minor circuit adjustments and modifications (in this case a mere experimentation with series/parallel resistor circuits) have been notoriously known and widely used in the electrical arts at the time of the invention to improve upon similar devices. Therefore, applying the

aforementioned known techniques to the circuit of Takeuchi would have yield predictable results (i.e. desired heat balance and optimal "turn on" / "turn off" characteristics of the bimetal) and would have been be obvious to a person of ordinary skill to try with reasonable expectation of success. *KSR v. Teleflex*, 550 U.S. ,127 S. Ct. 1727 (2007). Further, Examiner would like to remind the Applicant that *KSR* forecloses the argument that a specific teaching is required for a finding of obviousness. *KSR*, 127 S.Ct. at 1741, 82 USPQ2d at 1396. The United States Supreme Court further commented that obviousness can be found using alternative analyses, those of common sense and of "obvious to try". The United States Supreme Court said: "Common sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id* at 1742. And "The same constricted analysis led the Court of Appeals to conclude, in error, that a patent claim cannot be proved obvious merely by showing that the combination of elements was obvious to try. . . . In that instance the fact that a combination was obvious to try might show that it was obvious under § 103." *Id*.

In view of the above the rejection of claims 1, 3, and 4 is hereby maintained.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANATOLY VORTMAN whose telephone number is (571)272-2047. The examiner can normally be reached on Monday-Thursday, between 10:00 am and 8:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jayprakash Gandhi can be reached on 571-272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anatoly Vortman/  
Primary Examiner, Art Unit 2835